

LA0100 (NP)

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REPEAT OF
AMENDMENTS TO CLAIMS
AS SET OUT IN THE AMENDMENT FILED JUNE 12, 2006

Claim 1. (Currently Amended) A method of making glycosides using a non-cryogenic process comprising, in a continuous process, the steps of:

- (a) lithiating an aromatic reactant having a leaving group using a lithium reagent in a first microreactor at non-cryogenic temperatures to form a lithiated anion species; and
- (b) coupling the lithiated anion species with a carbonyl substituted reactant at non-cryogenic temperatures to form a glycoside.

Claim 2. (Original) The method according to claim 1, wherein said lithiating step is performed at a temperature of from about -10°C to about 20°C.

Claim 3. (Original) The method according to claim 2, wherein said lithiating step is performed at a temperature of from about -10°C to about 5°C.

Claim 4. (Original) The method according to claim 1, wherein the residence time in said first microreactor is from about 2 seconds to about 3 seconds.

Claim 5. (Original) The method according to claim 1, wherein said aromatic reactant is a halide.

Claim 6. (Original) The method according to claim 1, where said lithium reagent is selected from the group consisting of n-BuLi and t-BuLi.

Claims 7-9. (Cancelled).

Claim 10. (Original) The method according to claim 1, wherein said coupling step is performed in a second microreactor under non-cryogenic conditions.

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Claim 11. (Original) The method according to claim 10, wherein said coupling step is performed at a temperature of from about -20°C to about 20°C.

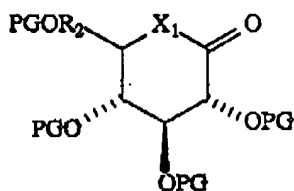
Claim 12. (Original) The method according to claim 11, wherein said coupling step is performed at a temperature of about -10°C.

Claim 13. (Original) The method according to claim 10, wherein the residence time in said second microreactor is from about 2 seconds to about 3 seconds.

Claim 14. (Original) The method according to claim 10, wherein a yield of said glycoside is greater than about 70%.

Claim 15. (Currently Amended) A method of making glycosides using a non-cryogenic process comprising, in a continuous process, the steps of:

- (a) lithiating an aromatic reactant having a leaving group using a lithium reagent at non-cryogenic temperatures to form a lithiated anion species; and
- (b) coupling the lithiated anion species with a carbonyl substituted reactant according to formula IV



[IV]

wherein

X₁ is a heteroatom;

R₂ is a substituted or unsubstituted alkyl group; and

PG is a protective group, in a microreactor under non-cryogenic ~~conditions~~ temperatures to form a glycoside.

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Claim 16. (Original) The method according to claim 15, wherein said coupling step is performed at a temperature of from about -10°C to about 20°C.

Claim 17. (Original) The method according to claim 15, wherein said coupling step is performed at a temperature of from about -10°C to about 5°C.

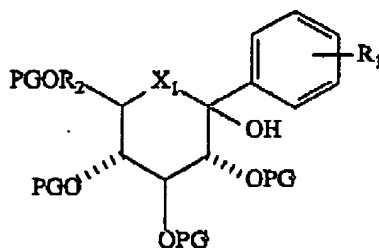
Claim 18. (Original) The method according to claim 15, wherein the residence time in said microreactor is from about 2 seconds to about 3 seconds.

Claim 19. (Cancelled).

Claim 20. (Original) The method according to claim 1, further comprising the step of:
(c) deprotecting the glycoside.

Claim 21. (Original) A glycoside formed by the method of claim 1.

Claim 22. (Currently Amended) A continuous process for making a glycoside having the general structural formula [I]:

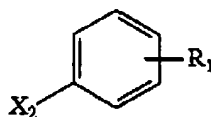


[I]

wherein: R_1 is hydrogen, NO_2 , OR_4 , a halogen, or a substituted or non-substituted alkyl, aryl, or heterocycle; R_2 is a substituted or non-substituted alkyl group; R_4 is a substituted or non-substituted alkyl or aryl; X_1 is a heteroatom; and PG is a protective group,
the method including the steps of:

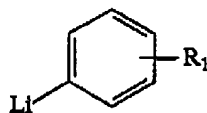
(a) reacting an aromatic reactant having general structural formula [II]:

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[II]

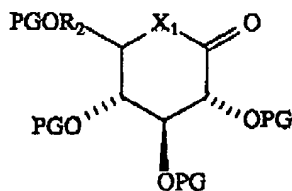
wherein: R_1 is as defined previously and X_2 is a leaving group, in a first microreactor with an organo lithium reagent at non-cryogenic temperatures to form a lithiated anion species having general structural formula [III]:



[III]

wherein R_1 is as defined previously, and

(b) coupling the lithiated anion species [III] with a carbonyl substituted compound having general structural formula [IV]:



[IV]

wherein: R_2 , X_1 and PG are as described previously, at non-cryogenic temperatures to form the compound having general structural formula [I].

Claim 23. (Original) The method of claim 22 wherein the lithiating step is performed at a temperature of from about -10°C to 20°C .

Claim 24. (Previously Presented) The method of claim 23 wherein the coupling step is performed in a second microreactor at non-cryogenic temperatures.

Claim 25. (Original) The method of claim 23 wherein the lithiating step is conducted in a solvent selected from THF/toluene or THF/heptane.

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Claim 26. (Previously Presented) The method of claim 23 wherein the coupling step is performed in a second microreactor at non-cryogenic temperatures.

Claim 27. (Original) The method of claim 26 wherein the coupling step is performed at a temperature of from about -20°C to 20°C.

Claim 28. (New) The method of claim 15 wherein PG is a per(silyl) group.

Claim 29. (New) The method of claim 28 wherein PG is Me₃Si, Et₃Si or Me₂SiBu-t.

Claim 30. (New) The method of claim 22 wherein PG is a per(silyl) group.

Claim 31. (New) The method of claim 30 wherein PG is Me₃Si, Et₃Si or Me₂SiBu-t.